

depressed for a short time under the condition that the alert sound is ringing. However, this duration is not only limited to just when the power key 3A is depressed but may be when after predetermined time.

In the aforementioned embodiments, description has been made about a case where the alert sound stopping function and the volume reducing function is allotted to the power key 3A which is designed to cut off the power supply when the power key 3A is depressed for a predetermined time or more. However, the present invention is not limited to these embodiments but an additional key may be further provided so that the alert sound stopping function or the volume reducing function is allotted exclusively to this additional key, or the alert sound stopping function or the volume reducing function is allotted to any one of the above-mentioned keys other than the power key 3A.

In the aforementioned embodiments, description has been made about a case where a display having a function to display various information is provided with a portable telephone 1 in one body.

However, the present invention is not limited to this case but is widely applicable to portable telephones not having such a display.

Further, in the aforementioned embodiments, description has been made about a portable telephone 1. However, the present invention is not limited to such a portable telephone but is widely applicable to information terminal equipment having a communication function, as well as to hard-wire telephones.

According to the present invention, as described above, configuration is made such that when a user effects a predetermined operation under the condition that an alert sound is ringing, the alert sound is stopped or the volume of the alert sound is reduced at least over a duration of call incoming, so that such a fear that persons in the surroundings may be troubled by the continuous ringing of the alert sound can be remarkably reduced.

Further, the situation that power supply is cut off forcibly during call origination can be avoided, so that such a fear that a person on the call origination side may be given an unpleasant feeling can be reduced.

While there has been described in connection with the preferred embodiments of the invention, it will be obvious to those skilled in the art that various changes and modifications may be made, therefore, the appended claims are provided to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What is claimed is:

1. A communication terminal for informing a user of a received call from a remote caller by an alert sound, comprising:

an alert sound generator for generating the alert sound when the call is received from the remote caller;
control means for controlling said alert sound generator;
and
means for specifying a predetermined operation by the user,

wherein when said alert sound generator is generating the alert sound and said means for specifying said predetermined operation is operated by the user, said control means controls said alert sound generator to change a volume of the generated alert sound only for the received call, without affecting the volume of the alert sound for future received calls, while leaving a call ringing state, as perceived by the remote caller, of the call to the terminal from the remote caller unchanged.

2. The communication terminal according to claim 1, wherein

said control means controls the state of said alert sound generator to stop the sound.

3. The communication terminal according to claim 1, wherein

said control means controls the state of said alert sound generator to reduce the volume of the sound.

4. The communication terminal according to claim 1, wherein said predetermined operation is an operation depressing a predetermined operation key.

5. The communication terminal according to claim 4, wherein said operation key is a power key to turn on or break off connection between said terminal and a power supply.

6. The communication terminal according to claim 5, wherein said control means includes disconnection means for turning off power supplied by said power supply when said power key is depressed for at least a predetermined period of time and wherein said predetermined operation occurs when said power key is depressed for a time shorter than said predetermined period of time.

7. The communication terminal according to claim 6, wherein said predetermined period of time for depressing said power key is substantially equal to one second.

8. The communication terminal according to claim 6, wherein said control means again changes the state of said alert sound generator when said predetermined operation occurs again, after said predetermined operation has occurred a first time.

9. The communication terminal according to claim 8, wherein

said control means controls the state of said alert sound generator to stop an alert sound and then to generate the sound again.

10. The communication terminal according to claim 8, wherein said control means controls the state of said alert sound generator to reduce an audible volume levels of the sound and subsequently to restore said volume level of the sound to an unreduced level.

11. The communication terminal according to claim 1, further comprising display means for displaying information regarding said remote caller.

12. The communication terminal according to claim 1, further comprising:

RF signal processing means for transmitting and/or receiving radio waves; and

an antenna for transmitting and/or receiving said radio waves, wherein said communication status between said apparatus and said remote caller is established by said transmitted and/or received radio waves.

13. A method of informing a user of a received call from a remote caller to a communication apparatus, comprising the steps of:

waiting to receive a call;
generating an alert sound upon receiving said call; and
changing a volume of the generated alert sound only for said call when the alert sound is being generated and a predetermined operation is specified by the user, without affecting the volume of the alert sound for subsequent future received calls, while leaving a call ringing status, as perceived by the remote caller, of the call from the remote caller to the communication apparatus unchanged.

14. The method of informing a user of a received call according to claim 13, wherein said predetermined operation comprises depressing a predetermined key for a time shorter than a predetermined period of time.

15. The method of informing a user of a received call according to claim 14, wherein said predetermined key is a

power key to turn on or break off a supply of power to said communication apparatus.

16. The method of informing a user of a received call according to claim 14, wherein said predetermined period of time is substantially equal to one second.

17. The method of informing a user of a received call according to claim 13, wherein said step of changing the state of the alert sound includes the step of toggling said predetermined operation.

18. The method of informing a user of a received call according to claim 13, wherein said state of the alert ringing sound is changed to the state where said alert sound is stopped.

19. The method of informing a user of a received call according to claim 13, wherein said state of the alert ringing sound is changed to the state where a volume level of said alert sound is reduced.

20. (New) A communication terminal with a function to inform a received call by an alert sound comprising:

an alert sound generator configured to generate an alert sound when the received call is received;

a first operation key configured to operate a predetermined operation; and

a controller, wherein

said controller measures a time period of depressing said first operation key when said first operation key is depressed while the received call is being received, controls a state of said alert sound generator when the time period of depressing said first operation key is shorter than a predetermined time period, and operates said predetermined operation when the time of depressing said operation key is longer than a predetermined time period.

21. (New) The communication terminal according to claim 20, wherein said predetermined operation is an operation of disconnecting a power supply of the communication terminal.

22. (New) The communication terminal according to claim 20, wherein said controller controls the state of said alert sound generator such that the alert sound is one of stopped and reduced in volume.

23. (New) The communication terminal according to claim 20, further comprising:

a communication circuit configured to communicate with a second party; and

a second operation key configured to enable a conversation with said second party;

wherein

said controller controls said communication circuit so as to communicate with said second party when said second operation key is depressed while said controller is controlling the state of said alert sound generator.

2025 RELEASE UNDER E.O. 14176